

CLAIMS

What is claimed is:

1. A method of manufacturing a wiring board, comprising:
forming a receiving layer from a thermosetting resin precursor;
forming an interconnecting layer on the receiving layer from a dispersion liquid containing conductive particles; and
applying heat to the receiving layer and the interconnecting layer to cure the thermosetting resin precursor and to bond the conductive particles together.
2. The method of manufacturing a wiring board as defined in claim 1, wherein a polyimide precursor is used as the thermosetting resin precursor and polymerized by the heat.
3. The method of manufacturing a wiring board as defined in claim 1, wherein the interconnecting layer is formed by ejecting the dispersion liquid containing the conductive particles.
4. The method of manufacturing a wiring board as defined in claim 1, wherein the receiving layer is formed on a base material.
5. The method of manufacturing a wiring board as defined in claim 4, further comprising:
removing the base material from the receiving layer after curing of the thermosetting resin precursor and bonding of the conductive particles.
6. A wiring board manufactured by the method as defined in claim 1.

7. A semiconductor device comprising:
the wiring board as defined in claim 6; and
a semiconductor chip electrically connected to the wiring board.
8. An electronic instrument comprising the semiconductor device as defined in claim 7.
9. A method of manufacturing a wiring board, comprising:
forming a first receiving layer from a thermosetting resin precursor;
forming a first interconnecting layer on the first receiving layer from a dispersion liquid containing conductive particles;
forming a second receiving layer on the first receiving layer and the first interconnecting layer from a thermosetting resin precursor;
forming a second interconnecting layer on the second receiving layer from a dispersion liquid containing conductive particles; and
applying heat to cure the thermosetting resin precursors of the first and second receiving layers and to bond the conductive particles of the first and second interconnecting layers together at a connecting portion of the first and second interconnecting layers.
10. The method of manufacturing a wiring board as defined in claim 9, further comprising:
heating the first interconnecting layer before forming the second receiving layer, at a temperature lower than a temperature at which the thermosetting resin precursor of the first receiving layer is cured.

11. The method of manufacturing a wiring board as defined in claim 10, wherein:

the conductive particles are dispersed in a dispersion medium and covered by a coating material to reduce mutual reaction of the conductive particles; and

the coating material is decomposed in the heating step before forming the second receiving layer.

12. The method of manufacturing a wiring board as defined in claim 9, wherein:

the thermosetting resin precursor of the second receiving layer has photosensitivity before being cured; and

the second receiving layer is patterned by using photosensitivity before curing by the heat.

13. The method of manufacturing a wiring board as defined in claim 9,

wherein a polyimide precursor is used as the thermosetting resin precursor and polymerized by the heat.

14. The method of manufacturing a wiring board as defined in claim 9,

wherein the first and second interconnecting layers are formed by ejecting the dispersion liquid containing the conductive particles.

15. The method of manufacturing a wiring board as defined in claim 9,

wherein the first receiving layer is formed on a base material.

16. The method of manufacturing a wiring board as defined in claim 15, further comprising:

removing the base material from the first receiving layer after curing the thermosetting resin precursors of the first and second receiving layers and bonding of the conductive particles of the first and second interconnecting layers at a connecting portion of the first and second interconnecting layers.

17. A wiring board manufactured by the method as defined in claim 9.

18. A semiconductor device comprising:

the wiring board as defined in claim 17; and

a semiconductor chip electrically connected to the wiring board.

19. An electronic instrument comprising the semiconductor device as defined in claim 18.